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| INGRASSIA FISHER & LORENZ, P.C.<br>7150 E. CAMELBACK, STE. 325<br>SCOTTSDALE, AZ 85251 |             |                      |                     |                  |
| EXAMINER<br>MARCHESCHI, MICHAEL A  |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 1755   |             |                      |                     |                  |
| DATE MAILED: 12/08/2004  |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/712,367

Applicant(s)

KAMBOJ, SUMANT

Examiner

Michael A Marcheschi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

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The disclosure is objected to because of the following informalities:

**The continuing date needs to be updated.** Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30, 31, 43 and 44 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over James et al.

James et al. teach in the abstract, column 3, line 40-column 4, line 60 and column 7, line 4 and the figures, a polishing article (used in the claimed manner) which comprises a resin matrix and abrasive particles dispersed throughout, wherein the polishing article has a grooved working surface. It is also shown that fillers can be added to the resin/abrasive mix. Amounts for the abrasive, resin and fillers are defined.

The reference teaches a polishing article which anticipates the instant claims because all of the claimed components are defined. In the alternative, no patentable distinction is seen to

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exist between the reference and the claimed invention in the absence of any evidence showing the contrary.

Claims 36, 37, 49 and 50 are rejected under 35 U.S.C. 103(a) as obvious over James et al. in view of Bruxvoort et al.

Bruxvoort et al. teach in column 21, lines 45+ that talc, etc. are a well known fillers (claimed hardness) for abrasive articles.

James et al. teach that a filler can be used and it is the examiners position that the broad interpretation of a filler encompasses and makes obvious any and all fillers for abrasive articles, including talc, as shown by Bruxvoort et al.

Claim 32-35, 38-42, 45-48 and 51-53 are rejected under 35 U.S.C. 103(a) as obvious over James et al. in view of in view of Shamouillan et al. or Newell.

Shamouillan et al. teach in the abstract, column 3, lines 1-30, column 6, line 66-column 7, line 10 and column 7, lines 50-65, a polishing article which comprises a resin matrix and abrasive particles (ceria) dispersed throughout, wherein the polishing article has a plurality of conduits for delivering a polishing slurry, lubricant, etc.

Newell teaches in the abstract and column 1, line 58-column 3, line 58, a polishing article which comprises a resin matrix and abrasive particles dispersed throughout, wherein the polishing article has a plurality of windows for visual inspection of the article to be polished. It is also stated that the working surface is textured.

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With respect to the amounts of components (abrasive, filler and resin), the primary reference teaches amounts and/or ratios and when these amounts and/or ratios are calculated in the manner of the instant claimed (i.e. what the amounts are based on), it is the examiners position that said amounts will encompass the claimed ranges and/or limitations and therefore the claimed amounts are obvious. With respect to the limitation of conduits, it is the examiners position that it would have been obvious to fabricate a plurality of conduits, as shown by Shamouillan et al., in the polishing article according to James et al. in order to optimize the delivering of a fluid (i.e. polishing slurry, lubricant, etc). at the interface of the article and substrate to be polished. The use of conduits will continuously supply the fluid in a homogeneous manner relative to the interface. Any optimization of fluid delivery is well within the level of ordinary skill in the art. With respect to the window limitation, it is the examiners position that it would have been obvious to fabricate the polishing article according to James et al. with windows therein in order to provide a mechanism for visual inspection and monitoring of the surface to be polished, as shown by Newell. With respect to the use of a curing agent and claimed amount, although the primary reference does not define this, it is the examiners position that the use of a curing agent would have been well within the level of ordinary skill in the art in order to optimize the time needed for curing. The amount required is also within the scope of the skilled artisan. With respect to the thickness, the manufacture of the article according to the primary reference into any thickness, depending on its use, is obvious to the skilled artisan.

Claims 30, 31, 34, 36, 37, 43, 44, 47, 49 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by or in the alternative under 35 U.S.C. 103(a) as obvious over Bruxvoort et al.

Bruxvoort et al. teach in the abstract, column 15, lines 12-13, column 18, lines 17-24, column 19, lines 28-30, column 21, lines 25-60, column 22, line 65-column 23, line 39 and column 28, lines 15+, a polishing article (claimed use) which comprises a fixed abrasive comprising resin matrix and abrasive particles dispersed throughout, wherein the polishing article has a textured working surface. It is also shown that filler can be added. The amounts of the abrasive and binder are defined. The binder can also contain an initiator (curing agent).

The reference teaches a polishing article which anticipates the instant claims because all of the claimed components are defined. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention in the absence of any evidence showing the contrary.

Claims 32-33, 35, 38-42, 45-46, 48 and 51-53 are rejected under 35 U.S.C. 103(a) as obvious over Bruxvoort et al. in view of James et al. or Shamouillan et al. or Newell.

With respect to the amounts of components (abrasive, filler and resin), the primary reference teaches all of said amounts except the filler amount. The filler amount would have been obvious because (1) James teaches that this is a conventional filler amount when used to make abrasive articles and (2) it is the examiners position that since the primary reference fails to mention any specific concentration (criticality), this (the absence of any such limitations) constitutes a broad teaching for this value, as long as the final abrasive article is obtained. In view of this, it can be reasonably interpreted that the claimed values are encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). With this being obvious, the primary reference teaches amounts and/or ratios and

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when these amounts and/or ratios are calculated in the manner of the instant claimed (i.e. what the amounts are based on), it is the examiners position that said amounts will encompass the claimed ranges and/or limitations and therefore the claimed amounts are obvious. With respect to the limitation of conduits, it is the examiners position that it would have been obvious to fabricate a plurality of conduits, as shown by Shamouillan et al., in the polishing article according to the primary reference in order to optimize the delivering of a fluid (i.e. polishing slurry, lubricant, etc). at the interface of the article and substrate to be polished. The use of conduits will continuously supply the fluid in a homogeneous manner relative to the interface. Any optimization of fluid delivery is well within the level of ordinary skill in the art. With respect to the window limitation, it is the examiners position that it would have been obvious to fabricate the polishing article according to the primary reference with windows therein in order to provide a mechanism for visual inspection and monitoring of the surface to be polished, as shown by Newell. With respect to the amount of curing agent, although the primary reference does not define this, it is the examiners position that the amount required is well within the scope of the skilled artisan. With respect to the thickness, the manufacture of the article according to the primary reference into any thickness, depending on its use, is obvious to the skilled artisan.

Claims 30, 31, 34 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by or in the alternative under 35 U.S.C. 103(a) as obvious over Charvat (589).

Charvat teaches in the abstract, column 4, line 11-column 9, line 55, column 18, line 33-column 19, line 13 and column 25, lines 20-37, a polishing article (can be in the form of any abrasive article-see column 20) which comprises a fixed abrasive comprising resin matrix and

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abrasive particles dispersed throughout. It is also shown that a filler can be added (filler material has the claimed hardness). The amounts of the abrasive are defined. The binder can also contain an initiator (curing agent).

The reference teaches a polishing article which anticipates the instant claims because all of the claimed components are defined. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention in the absence of any evidence showing the contrary.

Claims 32-33, 35, 37-53 are rejected under 35 U.S.C. 103(a) as obvious over Charvat (589) in view of James et al. and/or Bruxvoort et al. or Shamouillan et al. or Newell.

With respect to the filler, the primary reference teaches that a filler can be used and it is the examiners position that the broad interpretation of a filler encompasses and makes obvious any and all fillers for abrasive articles, including talc, as shown by Bruxvoort et al. With respect to the amounts of components (abrasive, filler and resin), the primary reference teaches the amount of abrasive. The filler and organic material (binder) amounts would have been obvious because (1) James teaches that these are conventional filler and organic material (binder) amounts when used to make abrasive articles and (2) it is the examiners position that since the primary reference fails to mention any specific concentration (criticality), this (the absence of any such limitations) constitutes a broad teaching for this value, as long as the final abrasive article is obtained. In view of this, it can be reasonably interpreted that the claimed values are encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). With this being obvious, the primary reference teaches

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amounts and/or ratios and when these amounts and/or ratios are calculated in the manner of the instant claimed (i.e. what the amounts are based on), it is the examiners position that said amounts will encompass the claimed ranges and/or limitations and therefore the claimed amounts are obvious. With respect to the limitation of conduits, it is the examiners position that it would have been obvious to fabricate a plurality of conduits, as shown by Shamouillan et al., in the polishing article according to the primary reference in order to optimize the delivering of a fluid (i.e. polishing slurry, lubricant, etc). at the interface of the article and substrate to be polished. The use of conduits will continuously supply the fluid in a homogeneous manner relative to the interface. Any optimization of fluid delivery is well within the level of ordinary skill in the art. With respect to the window limitation, it is the examiners position that it would have been obvious to fabricate the polishing article according to the primary reference with windows therein in order to provide a mechanism for visual inspection and monitoring of the surface to be polished, as shown by Newell. With respect to the amount of curing agent, although the primary reference does not define this, it is the examiners position that the amount required is well within the scope of the skilled artisan. With respect to the thickness, the manufacture of the article according to the primary reference into any thickness, depending on its use, is obvious to the skilled artisan. With respect to the method claims, the primary reference states that "other tools" can be formed and this makes obvious polishing pads, as shown by James et al., thus making the claimed method obvious (conventional method).

Claims 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by or in the alternative under 35 U.S.C. 103(a) as obvious over Narayanan et al.

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Narayanan et al. teach in the abstract, column 2, line 57-column 4, line 45 and the claims, a polishing article (can be in the form of any abrasive article-see column 4, line 45) which comprises a fixed abrasive comprising resin matrix and abrasive particles dispersed throughout. It is also shown that a friable filler (any friable filler or friable filler of a silicate material) can be added. The amounts of the abrasive and filler are defined.

The reference teaches a polishing article which anticipates the instant claims because all of the claimed components are defined. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention in the absence of any evidence showing the contrary.

Claims 32-53 are rejected under 35 U.S.C. 103(a) as obvious over Narayanan et al. in view of James et al. and/or Bruxvoort et al. or Shamouillan et al. or Newell.

With respect to the filler, the primary reference teaches that a friable filler can be used and it is the examiners position that the broad interpretation of a friable filler encompasses and makes obvious the claimed fillers because they fall within the scope of the reference. In addition, Bruxvoort et al. shows that the claimed fillers are conventional fillers. With respect to the amounts of components (abrasive, filler and resin), the primary reference teaches the amount of abrasive and filler. The organic material (binder) amounts would have been obvious because (1) James teaches that this is a conventional organic material (binder) amount when used to make abrasive articles and (2) it is the examiners position that since the primary reference fails to mention any specific concentration (criticality), this (the absence of any such limitations) constitutes a broad teaching for this value, as long as the final abrasive article is obtained. In

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view of this, it can be reasonably interpreted that the claimed values are encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). With this being obvious, the primary reference teaches amounts and/or ratios and when these amounts and/or ratios are calculated in the manner of the instant claimed (i.e. what the amounts are based on), it is the examiners position that said amounts will encompass the claimed ranges and/or limitations and therefore the claimed amounts are obvious. With respect to the limitation of conduits, it is the examiners position that it would have been obvious to fabricate a plurality of conduits, as shown by Shamouillan et al., in the polishing article according to the primary reference in order to optimize the delivering of a fluid (i.e. polishing slurry, lubricant, etc). at the interface of the article and substrate to be polished. The use of conduits will continuously supply the fluid in a homogeneous manner relative to the interface. Any optimization of fluid delivery is well within the level of ordinary skill in the art. With respect to the window limitation, it is the examiners position that it would have been obvious to fabricate the polishing article according to the primary reference with windows therein in order to provide a mechanism for visual inspection and monitoring of the surface to be polished, as shown by Newell. With respect to the thickness, the manufacture of the article according to the primary reference into any thickness, depending on its use, is obvious to the skilled artisan. With respect to the use of a curing agent and claimed amount, although the primary reference does not define this, it is the examiners position that the use of a curing agent would have been well within the level of ordinary skill in the art in order to optimize the time needed for curing. The amount required is also within the scope of the skilled artisan. With respect to the method claims, the primary reference states that "other tools" can be formed and this makes obvious

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polishing pads, as shown by James et al., thus making the claimed method obvious (conventional method).

Claims 30, 31, 34 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by or in the alternative under 35 U.S.C. 103(a) as obvious over Charvat (420).

Charvat teaches in the abstract, column 8, line 65-column 13, line 40, a polishing article (can be in the form of any abrasive article) which comprises a fixed abrasive comprising resin matrix and abrasive particles dispersed throughout. It is also shown that a filler can be added (filler material has the claimed hardness). The amount of the abrasive and binder are defined. The binder can also contain an initiator (curing agent).

The reference teaches a polishing article which anticipates the instant claims because all of the claimed components are defined. In the alternative, no patentable distinction is seen to exist between the reference and the claimed invention in the absence of any evidence showing the contrary.

Claims 32-33, 35, 37-53 are rejected under 35 U.S.C. 103(a) as obvious over Charvat (420) in view of James et al. and/or Bruxvoort et al. or Shamouillan et al. or Newell.

With respect to the filler, the primary reference implies that any filler can be used and it is the examiners position that the broad interpretation of any filler encompasses and makes obvious any and all fillers for abrasive articles, including talc, etc., as shown by Bruxvoort et al. With respect to the amounts of components (abrasive, filler and resin), the primary reference teaches the amounts of abrasive and binder. The filler amount would have been obvious because

(1) James teaches that this is a conventional filler amount when used to make abrasive articles and (2) it is the examiners position that since the primary reference fails to mention any specific concentration (criticality), this (the absence of any such limitations) constitutes a broad teaching for this value, as long as the final abrasive article is obtained. In view of this, it can be reasonably interpreted that the claimed values are encompassed by the broad teachings according to this reference in the absence of any evidence showing the contrary (criticality). With this being obvious, the primary reference teaches amounts and/or ratios and when these amounts and/or ratios are calculated in the manner of the instant claimed (i.e. what the amounts are based on), it is the examiners position that said amounts will encompass the claimed ranges and/or limitations and therefore the claimed amounts are obvious. With respect to the limitation of conduits, it is the examiners position that it would have been obvious to fabricate a plurality of conduits, as shown by Shamouillan et al., in the polishing article according to the primary reference in order to optimize the delivering of a fluid (i.e. polishing slurry, lubricant, etc). at the interface of the article and substrate to be polished. The use of conduits will continuously supply the fluid in a homogeneous manner relative to the interface. Any optimization of fluid delivery is well within the level of ordinary skill in the art. With respect to the window limitation, it is the examiners position that it would have been obvious to fabricate the polishing article according to the primary reference with windows therein in order to provide a mechanism for visual inspection and monitoring of the surface to be polished, as shown by Newell. With respect to the amount of curing agent, although the primary reference does not define this, it is the examiners position that the amount required is well within the scope of the skilled artisan. With respect to the thickness, the manufacture of the article according to the primary reference into any

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thickness, depending on its use, is obvious to the skilled artisan. With respect to the method claims, the primary reference states implies that any tool can be made and this makes obvious polishing pads, as shown by James et al., thus making the claimed method obvious (conventional method).

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

**"A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968)". In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.**

**"A generic disclosure renders a claimed species prima facie obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)".**

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of

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obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976)".

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548.

Evidence of unexpected results must be commensurate in scope with the subject matter claimed.

*In re Linder* 173 USPQ 356.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/04  
MM

Michael A Marcheschi  
Primary Examiner  
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